1743

1600

ENTERED

RAW SEQUENCE LISTING DATE: 11/19/2002
PATENT APPLICATION: **US/09/508,775** TIME: 10:29:47

Input Set : **D:\403uspc.app.txt**
Output Set: **N:\CRF4\11192002\I508775.raw**

4 <110> APPLICANT: Mattiasson, Bo
5 Csoregi, Elisabeth
6 Bontidean, Ibolya
7 Johansson, Gillis
8 Berggren, Christine
9 Brown, Nigel
10 Lloyd, Jonathan
11 Jakeman, Kenneth
12 Hobman, Jonathan
13 Wilson, Jonathan
14 Van Der Leile, Daniel
15 Corbisier, Philippe

18 <120> TITLE OF INVENTION: METAL ION SPECIFIC CAPACITY AFFINITY SENSOR
21 <130> FILE REFERENCE: 100096.403USPC
23 <140> CURRENT APPLICATION NUMBER: US 09/508,775
C--> 24 **<141> CURRENT FILING DATE: 2000-05-17**
26 <160> NUMBER OF SEQ ID NOS: 4
28 <170> SOFTWARE: FastSEQ for Windows Version 4.0
30 <210> SEQ ID NO: 1
31 <211> LENGTH: 289
32 <212> TYPE: PRT
33 <213> ORGANISM: Synechococcus sp.
35 <400> SEQUENCE: 1

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Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
 1               5                  10                  15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
            20                  25                  30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
        35                  40                  45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
    50                  55                  60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65                  70                  75                  80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
                85                  90                  95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
            100                 105                 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
        115                 120                 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
    130                 135                 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145                 150                 155                 160
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PATENT APPLICATION: US/09/508,775 TIME: 10:29:47

Input Set : D:\403uspc.app.txt
Output Set: N:\CRF4\11192002\I508775.raw

```
56 Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
57                 165                 170                 175
58 Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
59             180                 185                 190
60 Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
61         195                 200                 205
62 Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Ile Glu Gly
63     210                 215                 220
64 Arg Gly Ile Pro Met Thr Ser Thr Thr Leu Val Lys Cys Ala Cys Glu
65 225                 230                 235                 240
66 Pro Cys Leu Cys Asn Val Asp Pro Ser Lys Ala Ile Asp Arg Asn Gly
67                 245                 250                 255
68 Leu Tyr Tyr Cys Ser Glu Ala Cys Ala Asp Gly His Thr Gly Gly Ser
69             260                 265                 270
70 Lys Gly Cys Gly His Thr Gly Cys Asn Cys Ser Glu Phe Ile Val Thr
71         275                 280                 285
72 Asp
75 <210> SEQ ID NO: 2
76 <211> LENGTH: 144
77 <212> TYPE: PRT
78 <213> ORGANISM: Pseudomonas aeruginosa
80 <400> SEQUENCE: 2
81 Met Glu Asn Asn Leu Glu Asn Leu Thr Ile Gly Val Phe Ala Lys Ala
82  1               5                  10                  15
83 Ala Gly Val Asn Val Glu Thr Ile Arg Phe Tyr Gln Arg Lys Gly Leu
84             20                  25                  30
85 Leu Leu Glu Pro Asp Lys Pro Tyr Gly Ser Ile Arg Arg Tyr Gly Glu
86         35                  40                  45
87 Ala Asp Val Thr Arg Val Arg Phe Val Lys Ser Ala Gln Arg Leu Gly
88     50                  55                  60
89 Phe Ser Leu Asp Glu Ile Ala Glu Leu Leu Arg Leu Glu Asp Gly Thr
90 65                  70                  75                  80
91 His Cys Glu Glu Ala Ser Ser Leu Ala Glu His Lys Leu Lys Asp Val
92                 85                  90                  95
93 Arg Glu Lys Met Ala Asp Leu Ala Arg Met Glu Ala Val Leu Ser Glu
94             100                 105                 110
95 Leu Val Cys Ala Cys His Ala Arg Arg Gly Asn Val Ser Cys Pro Leu
96         115                 120                 125
97 Ile Ala Ser Leu Gln Gly Gly Ala Ser Leu Ala Gly Ser Ala Met Pro
98     130                 135                 140
100 <210> SEQ ID NO: 3
101 <211> LENGTH: 145
102 <212> TYPE: PRT
103 <213> ORGANISM: Alcaligenes eutrophus
105 <400> SEQUENCE: 3
106 Met Asn Ile Gln Ile Gly Glu Leu Ala Lys Arg Thr Ala Cys Pro Val
107  1               5                  10                  15
108 Val Thr Ile Arg Phe Tyr Glu Gln Glu Gly Leu Leu Pro Pro Pro Gly
109             20                  25                  30
```

RAW SEQUENCE LISTING DATE: 11/19/2002
PATENT APPLICATION: US/09/508,775 TIME: 10:29:47

Input Set : D:\403uspc.app.txt
Output Set: N:\CRF4\11192002\I508775.raw

```
110 Arg Ser Arg Gly Asn Phe Arg Leu Tyr Gly Glu Glu His Val Glu Arg
111         35                  40                  45
112 Leu Gln Phe Ile Arg His Cys Arg Ser Leu Asp Met Pro Leu Ser Asp
113     50                  55                  60
114 Val Arg Thr Leu Leu Ser Tyr Arg Lys Arg Pro Asp Gln Asp Cys Gly
115 65                  70                  75                  80
116 Glu Val Asn Met Leu Leu Asp Glu His Ile Arg Gln Val Glu Ser Arg
117                 85                  90                  95
118 Ile Gly Ala Leu Leu Glu Leu Lys His His Leu Val Glu Leu Arg Glu
119             100                 105                 110
120 Ala Cys Ser Gly Ala Arg Pro Ala Gln Ser Cys Gly Ile Leu Gln Gly
121         115                 120                 125
122 Leu Ser Asp Cys Val Cys Asp Thr Arg Gly Thr Thr Ala His Pro Ser
123     130                 135                 140
124 Asp
125 145
127 <210> SEQ ID NO: 4
128 <211> LENGTH: 72
129 <212> TYPE: PRT
130 <213> ORGANISM: Pseudomonas aeruginosa
132 <400> SEQUENCE: 4
133 Ala Thr Gln Thr Val Thr Leu Ser Val Pro Gly Met Thr Cys Ser Ala
134  1               5                  10                  15
135 Cys Pro Ile Thr Val Lys Lys Ala Ile Ser Glu Val Glu Gly Val Ser
136             20                  25                  30
137 Lys Val Asp Val Thr Phe Glu Thr Arg Gln Ala Val Val Thr Phe Asp
138         35                  40                  45
139 Asp Ala Lys Thr Ser Val Gln Lys Leu Thr Lys Ala Thr Ala Asp Ala
140     50                  55                  60
141 Gly Tyr Pro Ser Ser Val Lys Gln
142 65                  70
```

VERIFICATION SUMMARY DATE: 11/19/2002
PATENT APPLICATION: **US/09/508,775** TIME: 10:29:48

Input Set : **D:\403uspc.app.txt**
Output Set: **N:\CRF4\11192002\I508775.raw**

L:24 M:271 C: Current Filing Date differs, Replaced Current Filing Date